



US009636289B2

(12) **United States Patent  
Park**(10) **Patent No.: US 9,636,289 B2**(45) **Date of Patent: May 2, 2017**(54) **COMPOSITION FOR PREVENTING OR  
TREATING HAIR LOSS OR PROMOTING  
HAIR GROWTH COMPRISING  
SECOIRIDOID GLUCOSIDE DERIVATIVES**(71) Applicant: **INDUSTRY-ACADEMIC  
COOPERATION FOUNDATION,  
YONSEI UNIVERSITY, Seoul (KR)**(72) Inventor: **Tae Sun Park, Seoul (KR)**(73) Assignee: **INDUSTRY-ACADEMIC  
COOPERATION FOUNDATION,  
YONSEI UNIVERSITY, Seoul (KR)**(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.(21) Appl. No.: **14/356,162**(22) PCT Filed: **Jul. 8, 2013**(86) PCT No.: **PCT/KR2013/006061**

§ 371 (c)(1),

(2) Date: **May 4, 2014**(87) PCT Pub. No.: **WO2014/010900**PCT Pub. Date: **Jan. 16, 2014**(65) **Prior Publication Data**

US 2015/0119347 A1 Apr. 30, 2015

(30) **Foreign Application Priority Data**

Jul. 9, 2012 (KR) ..... 10-2012-0074407

(51) **Int. Cl.****A61K 8/60** (2006.01)**A61Q 7/00** (2006.01)**A61K 31/7048** (2006.01)(52) **U.S. Cl.**CPC ..... **A61K 8/602** (2013.01); **A61K 31/7048**  
(2013.01); **A61Q 7/00** (2013.01)(58) **Field of Classification Search**

None

See application file for complete search history.

(56) **References Cited**

## U.S. PATENT DOCUMENTS

4,828,837 A \* 5/1989 Uster ..... A61K 8/14

264/4.1

4,996,057 A \* 2/1991 Schoeff ..... A61K 8/41

424/583

2003/0004117 A1 \* 1/2003 Hamdi ..... A61K 31/23

514/25

2003/0170331 A1 \* 9/2003 Cals-Grierson et al. .... 424/769

2007/0184003 A1 \* 8/2007 Gaunitz ..... 424/70.11

2011/0217260 A1 \* 9/2011 Shantha ..... A61K 8/28

424/85.2

## FOREIGN PATENT DOCUMENTS

JP 2005-179353 A 7/2005

KR 10-2008-0026017 A 3/2008

KR 10-2010-0070665 A 6/2010

KR 10-2012-0052894 A 5/2012

WO WO 9614064 A1 \* 5/1996

## OTHER PUBLICATIONS

Durlu-Özkaya, J Food Process Technol vol. 2, Issue 3, 2011.\*  
International Search Report for PCT/KR2013/006061, Oct. 2013.  
Soyoung Park et al, Oleuropein attenuates hepatic steatosis induced  
by high-fat diet in mice, Journal of Hepatology, 2011, vol. 54, pp.  
984-993.

\* cited by examiner

Primary Examiner — Layla Berry

(74) Attorney, Agent, or Firm — Harness, Dickey &  
Pierce, P.L.C.(57) **ABSTRACT**The present invention provides a method for preventing or  
treating hair loss or promoting hair growth, comprising  
secoiridoid glucoside derivatives or hydrolysate thereof as  
active ingredients. The present invention not only includes  
natural compounds as an active ingredient without side  
effects of the long-term treatment in a chronic disease hair  
loss, but also shows excellent effects for promoting hair  
growth with stable efficacy. Therefore, the present invention  
may be used as an effective pharmaceutical, cosmetic or  
functional food composition for preventing or treating hair  
loss or promoting hair growth.**2 Claims, 5 Drawing Sheets**